

IN THE CLAIMS

1. (Currently amended) A telephony system comprising:
 - a switch for [analog] ~~voice~~ signals, the switch being connected to a first network;
 - a router for routing Internet Protocol packets, the router being connected to a second network using Internet Protocol addressing; and
 - a telephony gateway for converting [analog] ~~voice~~ signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] ~~voice~~ signals, the telephony gateway being connected to both the switch and the router;

wherein the switch differentiates between voice signals and data signals, and routes voice signals to the telephony gateway.
2. (Original) The telephony system of claim 1 wherein the first network is the Public Switched Telephone Network.
3. (Currently amended) The telephony system of claim 1 wherein the [analog] ~~voice~~ signals are voice calls.
4. (Currently amended) The telephony system of claim 1 wherein the telephony gateway also converts the [analog] ~~voice~~ signals into Real Time Protocol packets.
5. (Original) The telephony system of claim 1 wherein the switch includes line cards connected to a switch matrix.

6. (Original) The telephony system of claim 5 wherein the switch further includes trunk cards connected to the switch matrix.
7. (Original) The telephony system of claim 1 further comprising a signaling gateway connected to the router, the signaling gateway using an in-band signaling protocol for signaling the telephony gateway through the router.
8. (Original) The telephony system of claim 7 wherein the signaling gateway is also connected to an out-of-band signaling network, the signaling gateway having a translator for translating in-band signaling to out-of-band signaling and for translating out-of-band signaling to in-band signaling.
9. (Original) The telephony system of claim 1 wherein the second network is a voice network.
10. (Currently amended) The telephony system of claim 1 further comprising a remote access server for converting [analog] data signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] data signals, the remote access server being connected to both the switch and the router, wherein the switch routes data signals to the remote access server.

11. (Original) The telephony system of claim 1 wherein the switch is controlled by an Incumbent Local Exchange Carrier, and the telephony gateway and the router are controlled by a Competitive Local Exchange Carrier.

12. (Original) The telephony system of claim 1 wherein the switch, the telephony gateway, and the router are controlled by an Incumbent Local Exchange Carrier.

13. (Currently amended) A telephony system comprising:

a switch for [analog] data signals, the switch being connected to a first network;

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a router for routing Internet Protocol packets, the router being connected to a second network using Internet Protocol addressing; and

a remote access server for converting [analog] data signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] data signals, the remote access server being connected to both the switch and the router;

wherein the switch differentiates between voice signals and data signals, and routes data signals to the remote access server.

14. (Original) The telephony system of claim 13 wherein the first network is the Public Switched Telephone Network.

15. (Currently amended) The telephony system of claim 13 wherein the [analog] data signals are modem calls.

16. (Original) The telephony system of claim 13 wherein the switch includes line cards connected to a switch matrix.
17. (Original) The telephony system of claim 16 wherein the switch further includes trunk cards connected to the switch matrix.
18. (Original) The telephony system of claim 13 further comprising a signaling gateway connected to the router, the signaling gateway using an in-band signaling protocol for signaling the remote access server through the router.
- A1 19. (Original) The telephony system of claim 18 wherein the signaling gateway is also connected to an out-of-band signaling network, the signaling gateway having a translator for translating in-band signaling to out-of-band signaling and for translating out-of-band signaling to in-band signaling.
20. (Original) The telephony system of claim 13 wherein the second network is a data network.
21. (Currently amended) The telephony system of claim 13 further comprising a telephony gateway for converting [analog] voice signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] voice signals, the telephony gateway

being connected to both the switch and the router, wherein the switch routes voice signals to the telephony gateway.

22. (Original) The telephony system of claim 13 wherein the switch is controlled by an Incumbent Local Exchange Carrier, and the remote access sever and the router are controlled by a Competitive Local Exchange Carrier.
23. (Original) The telephony system of claim 13 wherein the switch, the remote access server, and the router are controlled by an Incumbent Local Exchange Carrier.
24. (Currently amended) A telephony system comprising:
- a switch for [analog] voice and data signals, the switch being connected to a first network;
 - a router for routing Internet Protocol packets, the router being connected to a second network using Internet Protocol addressing;
 - a telephony gateway for converting [analog] voice signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] voice signals, the telephony gateway being connected to both the switch and the router; and
 - a remote access server for converting [analog] data signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] data signals, the remote access server being connected to both the switch and the router;
- wherein the switch differentiates between voice signals and data signals, routes

voice signals to the telephony gateway, and routes data signals to the remote access server.

25. (Original) The telephony system of claim 24 wherein the first network is the Public Switched Telephone Network.
26. (Original) The telephony system of claim 24 further comprising a signaling gateway connected to the router, the signaling gateway using an in-band signaling protocol for signaling one of the telephony gateway and the remote access server through the router.
- AI 27. (Original) The telephony system of claim 26 wherein the signaling gateway is also connected to an out-of-band signaling network, the signaling gateway having a translator for translating in-band signaling to out-of-band signaling and for translating out-of-band signaling to in-band signaling.
28. (Original) The telephony system of claim 24 wherein the at least one network is one of a data network and a voice network.
29. (Original) The telephony system of claim 24 wherein the switch is controlled by an Incumbent Local Exchange Carrier, and the router, the telephony gateway, and the remote access server are controlled by a Competitive Local Exchange Carrier.
30. (Original) The telephony system of claim 24 wherein the switch, the router, the telephony

gateway, and the remote access server are controlled by an Incumbent Local Exchange Carrier.

31. (Currently amended) A switch for a telephony system comprising:

a switch matrix capable of being connected to the Public Switched Telephone Network and an Internet Protocol network;

at least one line rack with a plurality of line cards connected to the switch matrix;

AI at least one trunk rack with a plurality of trunk cards connected to the switch matrix; and

a telephony gateway for converting [analog] voice signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] voice signals, the telephony gateway being connected to the switch matrix;

wherein the switch matrix differentiates between voice signals and data signals, and routes voice signals to the telephony gateway.

32. (Currently amended) The switch of claim 31 further comprising a remote access server for converting [analog] data signals into Internet Protocol packets and for converting Internet Protocol packets into [analog] data signals, the remote access server being connected to the switch matrix, wherein the switch matrix routes data signals to the remote access server.

33. (Original) The switch of claim 32 further comprising a signaling gateway connected to

the telephony gateway and the remote access server, the signaling gateway using an in-band signaling protocol for signaling the telephony gateway and the remote access server.

34. (Original) The switch of claim 33 wherein the signaling gateway is also capable of being connected to an out-of-band signaling network, and the signaling gateway has a translator for translating in-band signaling to out-of-band signaling and for translating out-of-band signaling to in-band signaling.

35. (Original) The switch of claim 31 further comprising a signaling gateway connected to the telephony gateway, the signaling gateway using an in-band signaling protocol for signaling the telephony gateway.

Al. 36. (Currently amended) A method of transferring information within a telephony system comprising the steps of:

sending a circuit-switched [an analog] signal to a switch connected to a first network;

sending the circuit-switched [analog] signal from the switch to [one of] a telephony gateway connected to the switch if the circuit-switched signal is a voice signal, or to [and] a remote access server connected to the switch if the circuit-switched signal is a data signal;

converting the circuit-switched [analog] signal into an Internet Protocol packet at one of the telephony gateway and the remote access server;

sending the Internet Protocol packet from one of the telephony gateway and the remote access server to a router connected to one of the telephony gateway and the remote access server; and

routing the Internet Protocol packet from the router to a second network using Internet Protocol addressing connected to the router.

37. (Currently amended) The method of claim 36 wherein the circuit-switched [analog] signal is a voice call, and further comprising the step of sending the voice call to the telephony gateway for conversion into the IP packet.
38. (Original) The method of claim 37 wherein the second network is a voice network.
39. (Currently amended) The method of claim 36 wherein the circuit-switched [analog] signal is a modem call, and further comprising the step of sending the modem call to the remote access server for conversion into the IP packet.
40. (Original) The method of claim 39 wherein the second network is a data network.
41. (Original) The method of claim 36 further comprising the step of recording billing and call information at a signaling gateway connected to the router.
42. (Original) The method of claim 36 wherein the first network is the Public Switched

Telephone Network.

43. (Currently amended) A method of transferring information within a telephony system comprising the steps of:

sending an Internet Protocol packet from a first network using Internet Protocol addressing to a router connected to the first network;

sending the Internet Protocol packet from the router to [one of] a telephony gateway connected to the router if the Internet Protocol packet contains a voice signal, or [and] a remote access server connected to the router if the Internet Protocol packet contains a data signal;

converting the Internet Protocol packet to a circuit-switched [an analog] signal at one of the telephony gateway and the remote access server;

A) sending the circuit-switched [analog] signal from one of the telephony gateway and the remote access server to a switch connected to the one of the telephony gateway and the remote access server; and

sending the circuit-switched [an analog] signal from the switch to a second network connected to the switch.

44. (Currently amended) The method of claim 43 wherein the circuit-switched [analog] signal is a voice call, and further comprising the step of sending the voice call to the telephony gateway for conversion into the IP packet.

45. (Original) The method of claim 44 wherein the first network is a voice network.

46. (Currently amended) The method of claim 43 wherein the circuit-switched [analog] signal is a modem call, and further comprising the step of sending the modem call to the remote access server for conversion into the IP packet.

47. (Original) The method of claim 46 wherein the first network is a data network.

A! 48. (Original) The method of claim 43 further comprising the step of recording billing and call information at a signaling gateway connected to the router.

49. (Original) The method of claim 43 wherein the second network is the Public Switched Telephone Network.

50. (Canceled)

51. (Canceled)

52. (Canceled)

53. (Canceled)

54. (Canceled)